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DEPARTMENTOFAGRICULTURE
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Common Pests of Tropical Fruits & Citrus in the Cayman Islands

Information About...

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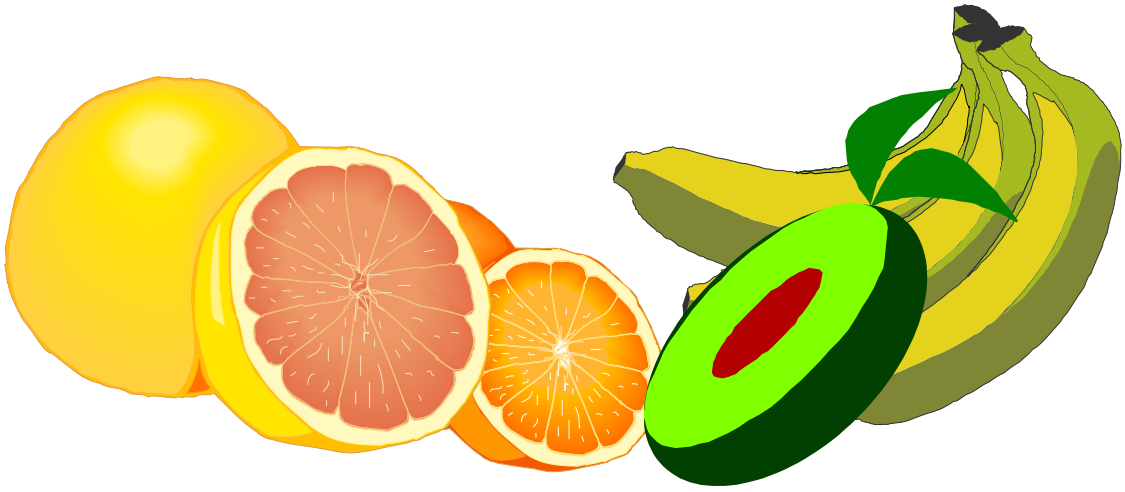

Name: Banana *Musa sp.* (AAA)

Disease: Sigatoka Leaf Diseases

Primary Cause: There are two Sigatoka diseases. Yellow Sigatoka which is caused by the fungus *Mycosphaerella musicola* and black Sigatoka which is caused by the fungus *Mycosphaerella fijiensis*.

Symptoms of infection: Leaves infected with Yellow Sigatoka have brown elliptical spots (eyespots) surrounded by a distinctive yellow halo.

Leaves infected with Black Sigatoka have narrow, rusty, brown streaks. During the early stages, the streaks are only visible on the underside of the leaf. As the colour of the streaks gets stronger and darken they become visible on the upper surfaces of leaves.

Both diseases can cause extensive leaf loss, but black Sigatoka is usually far more damaging. Yields are reduced and fruit are 'forced ripe' and ripen unevenly. In extreme cases all leaves can be destroyed before the bunch is mature and the bunch may fall from the pseudostem.

Recommended Control: Control of the diseases is important during period of high humidity, heavy dews and regular showers as dispersal is by rainwash and splash.
Prune and remove from the field leaves that are more than ¼ affected with the disease. However, at least five leaves must be left for bunches to grow and develop properly. If a large number of leaves are infected and/or the disease is spreading rapidly, pruning must be followed by chemical control. (Please contact the Department of Agriculture for information.)

Black sigatoka

Yellow sigatoka

Name: Mango (*Mangifera indica)*

Disease: Anthracnose

Primary Cause: Fungus (*Colletotrichum gloeosporioides*)

The fungus causes damage to leaves and twigs, blossoms and fruits. Trees of all ages may be affected.

Symptoms of infection: On leaves, anthracnose occurs as small, dark brown spots or a band of necrotic tissues along the mid rib.

On blossoms, anthracnose begins as minute dark spots. These may merge and result in shrivelled and blackened blossoms - Panicle blight. This condition could result in the loss of all blossoms on the panicle.

On young fruits, heavy infection causes mummification and fruit drop. On green fruits, the fungus causes small brown spots that do not enlarge until ripening. As ripening occurs, spots become large, sunken and black with a rot extending deep into the fruit.

Recommended Control: A fungicidal spray program is neceto prevent anthracnose disease may be necessary. For good control, spraying should start shortly before or at the blossom time, as follows:

Spray Benlate fungicide at 14-day internals until all fruit are set.

Spray a copper fungicide (e.g. liquid copper or basic copper sulphate) at monthly intervals

Name: Avocado (*Persea americana)*

Pest: Avocado Lace Bug (*Pseudacysta perseae)*

Avocado lace bugs attack the lower surface of avocado leaves, where they feed by extracting the juices from the plant. This extraction causes a gradual localised destruction of the plant cells.

Signs and Symptoms of infestation: Yellowish or brownish dead areas, either above or below the leaf are indications of the presence of avocado lace bugs underneath. Heavily infested trees may be defoliated by lace bugs.

Recommended Control: Remove and dispose of all fallen leaves from around the tree. Liquid Sevin or Safer Insecticidal Soap. Spray should be directed to the underside of leaves and repeated at approximate 2-week intervals until control is achieved. Re-infestation from unsprayed trees is likely to occur.

Name: Papaya *(Carica papaya)*

Diseases: Bunchy Top

Primary Cause: Phytoplasma

Symptoms of Infection: Plants first exhibit a faint mottling of the upper leaves which is followed by yellowing of the leaf surface, especially in interveinal areas. The growth of leaves and petioles is reduced and they become rigid. Internodes shorten, and the petioles grow nearly horizontally. Apical growth eventually ceases, which, with shortened internodes imparts a “bunchy top” appearance to plants.

Recommended Control: Sources of infection should not be allowed to flourish and infected plants should be removed or cut back. As the disease is transmitted by leafhoppers efforts should be made to control these insects. Control can be achieved by using systemic insecticides (e.g. Padan or Confidor).

Pest: Citrus Rust Mite *(Phyllocoptruta oleivora)*

This mite is a serious pest of citrus if left uncontrolled. It infests twigs, leaves and fruit of all citrus species and varieties, but its order of preference is lemons, grapefruits, oranges and tangerines.

Symptoms of infestation: Citrus rust mites when feeding on green twigs cause bronzing. On leaves, the injury occurs mostly on the upper surface resulting in small brown spots referred to as russeting. The fruit, though, often bear the most obvious signs of infestation. If damaged early in development, the fruit will have a smooth, silvery blemish; damage by the mite in later stages of development causes a russet-coloured stain that has a smooth surface. Infestations on fruit will not only reduce the grade of fresh fruit but will also reduce yields by causing premature fruit drop and reduced fruit size.

Recommended Control: The application of an acaricide e.g. Cure of Vertimec will control mite infestations.

Pest: Citrus Leafminer *(Phyllocnistis citrella)*

Leaf miner moth Phyllocnistis citrella

Damaged caused by larvae—*silvery* trails In the infested leaves

Signs and Symptoms of infestation: Leaves have irregular, silvery trails just beneath the upper leaf surface. Infested leaves often curl. Succulent branches of green shoots and fruits may also be attacked

Recommended control: Effective chemical control of Citrus Leafminer is difficult to achieve. However, timing insecticide applications to coincide with flushes will give protection. Use Caprid in combination with spray oil.

Disease: Greasy Spot

Primary Cause: A fungus *(Mycosphaerella citri)*

Symptoms of infection: Leaf symptoms first appear as a yellow mottle on the upper leaf surface, with a matching, slightly raised, pale orange to yellowish brown blister on the lower surface. Later, affected areas of the leaf become dark brown or even black and greasy in appearance. Heavily infected trees may drop a large portion of their leaves.

Recommended Control: Plouging-in or removing fallen leaves around trees should help to reduce disease severity and easy re-infection. To decrease the risk of infection, avoid wetting the leaves during watering. Chemical control is achieved by applying fungicides such as Liquid Copper or Bellis at the onset of the main growth flush that occurs in summer.

Name: Sour sop (*Annona muricata)*

Pest: Mealybugs

Mealybugs are one of the main pests found on Sour sop trees in the Cayman Islands. These insects are called Mealybugs because of the white mealy or waxy coverings on their bodies. Mealybugs have sucking mouthparts and feed by sucking the juices from the leaves and fruits of their host plant.

Signs and Symptoms of infestation: Mealybug infestation causes leaves to curl. When fruits are infested, they can be entirely covered with the white waxy coating of the mealybug. Infestation can lead to fruit drop, or fruit may remain on the tree in a dried and shrivelled condition. If blossoms are attacked fruit set is poor. Mealybugs secrete large amounts of 'honeydew' and a thick, black, sooty mould may grow on infested leaves or fruit as a result of this secretion. Ants, which feed on the honeydew, are likely to be present in large numbers.

Recommended Control: Mealybugs become more difficult to control as they age and multiply. Plants should be inspected frequently, especially during the drier months, when sucking insects are most active. Timely application of insecticides (e.g. Triple Action Neem or M-pede can prevent mealybug attack on sour sop leaves, flowers and fruits.

If infestation occurs contact the Department of Agriculture for assistance...Do not spray the pest…. You may be destroying the beneficial, parasitic wasps or the predator laybugs that are actively controlling the pest.